

What is claimed is:

1. A system comprising:

a server configured to process business transactions;

5 a middleware program communicatively coupled to the server;

a channel communicatively coupled to the middleware program and to the server;

and

10 an interface program communicatively coupled to the channel and to the middleware program, wherein the interface program is configured to receive data and a command that will initiate a business transaction;

15 wherein the interface program receives data from the channel and transmits the data to the middleware program; and wherein the middleware program validates portions of the data, transforms the data into a form required by the server, and transmits the transformed data to the server.

2. The system of claim 1, wherein the middleware program receives a result from the business transaction server and transfers the result to the interface program.

3. The system of claim 1, wherein the channel comprises a kiosk.

4. The system of claim 1, wherein the channel comprises a computer terminal.

5. The system of claim 1, wherein the channel comprises a telephone call center.

25 6. The system of claim 1, wherein the channel comprises an electronic data transfer system.

7. The system of claim 1, wherein a local area network communicatively couples the channel to the server.

8. The system of claim 1, wherein a wide area network communicatively couples the channel to the server.

5 9. The system of claim 1, wherein values of data used to check the validity of data transferred to the middleware program from the interface program may be changed without changing code of the middleware program.

10 10. The system of claim 1, wherein acceptable values for portions of the data are stored in at least one domain file, and wherein the middleware program generates an error code if the portions of the data do not have acceptable values.

15 11. The system of claim 10, further comprising a domain manager, and wherein the at least one domain file comprises at least one serialized file generated by the domain manager.

20 12. The system of claim 1, wherein the middleware program transfers data to a plurality of business transaction servers during the processing of a business transaction.

25 13. The system of claim 1, wherein the middleware program comprises computer code written in an object-oriented programming language.

30 14. The system of claim 1, wherein the middleware program is extendable without altering source code of the middleware program.

15. The system of claim 14, wherein an extension to the middleware program comprises computer code that is stored in a package and run when the middleware program runs.

16. A carrier medium that stores program instructions, wherein the program instructions are computer-executable to implement:

receiving data from one interface program of a plurality of interface programs,
wherein each interface program is communicatively coupled to one of a plurality of
channels;

validating a portion of received data against a domain of the data;

5 flattening the data; and

transferring the data to a business transaction server;

wherein the program instructions comprise a plurality of objects.

17. The carrier medium of claim 16, wherein the channel comprises a kiosk.

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18. The carrier medium of claim 16, wherein the channel comprises a computer
terminal.

19. The carrier medium of claim 16, wherein the channel comprises a telephone call
center.

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20. The carrier medium of claim 16, wherein the channel comprises an electronic data
transfer system.

21. The carrier medium of claim 16, wherein a local area network communicatively
couples the channel to the server.

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22. The carrier medium of claim 16, wherein a wide area network communicatively
couples the channel to the server.

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23. The carrier medium of claim 16, further comprising a separate set of computer
instructions that extend the functionality of the set of computer instructions.

24. The carrier medium of claim 16, further comprising at least one file that stores the
domain.

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25. The carrier medium of claim 16, wherein the program instructions are further computer-executable to implement:

receiving a result from the business transaction server;

inflating the result; and

transferring the result to the interface program.

26. A method of performing a business transaction on a computer system using a user interface program, a middleware program, and a business transaction server, comprising:

entering data into a channel that communicatively couples to the user interface;

transferring the data to the middleware program;

validating the data using the middleware program;

transforming the data into a form required by the business transaction server using the middleware program;

transferring the data to the business transaction server using the middleware program; and

processing the data using the business transaction server.

27. The method of claim 26, further comprising transferring results from the business transaction server to the middleware program, and transferring results from the middleware program to the user interface.

28. The method of claim 27, wherein the middleware program transforms the results into a form recognizable to the user interface program before transmitting the results to the user interface.

29. The method of claim 26, wherein validating the data for a portion of entered data comprises checking values of the portion of entered data against a domain of acceptable

data values, and further comprising generating an error code if an entered data value is not within the domain of acceptable values.

5 30. The method of claim 29, wherein the domain of acceptable data values are located in serialized files during use.

31. The method of claim 30, wherein the serialized domain files are generated from domain files by a domain manager.

10 32. The method of claim 26, wherein the middleware program determines if all required data to process the business transaction is present before transferring the data to the business transaction server, and wherein the middleware program generates an error code if all the required data is not present before the data is transferred to the business transaction server.

15 33. The method of claim 26, wherein the middleware program orders the data into an order required by the business transaction server before transferring the data to the business transaction server.

20 34. The method of claim 26, wherein the middleware program transfers data to and receives results from a plurality of business transaction servers during processing of the business transaction.

25 35. The method of claim 26, wherein the business transaction server comprises a legacy program.